CLAIMS

1. A carbohydrate-binding module which is

(a) a polypeptide encoded by the DNA sequence of positions 109-531 of SEQ ID NO:1, or a DNA sequence homologous to SEQ ID NO:1, which DNA sequence has at least 50% identity with positions 109-531 of SEQ ID NO:1 or

(b) a polypeptide produced by culturing a cell comprising the DNA sequence of positions 109-531 of SEQ ID NO:1 under conditions wherein the DNA sequence is expressed or

(c) a polypeptide having the amino acid sequence of positions 34-174 of SEQ ID NO:2 , or a polypeptide homologous to SEQ ID NO:2, which polypeptide has an amino acid sequence of at least 50% identity with positions 34-174 of SEQ ID NO:2 or

(d) a polypeptide encoded by a DNA sequence that hybridizes to the DNA sequence of positions 109-531 of SEQ ID NO:1 under low stringency conditions or

(e) a polypeptide encoded by an isolated polynucleotide molecule which polynucleotide molecule hybridizes to a denatured double-stranded DNA probe under low stringency conditions, wherein the probe is selected from the group consisting of DNA probes comprising the sequence shown in positions 109-531 of SEQ ID NO:1, and DNA probes comprising a subsequence of positions 109-531 of SEQ ID NO:1, the subsequence having a length of at least about 300 base pairs.

2. The carbohydrate-binding module of claim 1, which is encoded by a DNA sequence obtainable from *Pseudoplectania nigrella* CBS 444.97.

3. An isolated polynucleotide molecule encoding a polypeptide having carbohydrate-binding module activity selected from the group consisting of:

(a) polynucleotide molecules comprising a nucleotide sequence as shown in SEQ ID NO:1 from nucleotide 109 to nucleotide 531;

(b) polynucleotide molecules that encode a polypeptide that is more than 50% identical to the amino acid sequence of positions 34-174 of SEQ ID NO:2; or a fragment thereof that has carbohydrate-binding module activity;

(c) molecules complementary to (a) or (b); and

(d) degenerate nucleotide sequences of (a) or (b).

4. The isolated polynucleotide molecule according to claim 3, wherein the polynucleotide is DNA.

5. An isolated polynucleotide molecule encoding a polypeptide having carbohydrate-binding mod-

ule activity which polynucleotide molecule hybridizes to a denatured double-stranded DNA probe under low stringency conditions, wherein the probe is selected from the group consisting of DNA probes comprising the sequence shown in positions 109-531 of SEQ ID NO:1 and DNA probes comprising a subsequence of positions 109-531 of SEQ ID NO:1 having a length of at least about 300 base pairs.

6. The isolated polynucleotide molecule according to claim 3 which is isolated from or produced on the basis of a DNA library from a prokaryote, such as a bacterium or an eukaryote, such as a fungus or yeast.

7. The isolated polynucleotide molecule according to claim 6 which is isolated from or produced on the basis of a DNA library from a strain of *Pseudoplectania*, preferably the strain *Pseudoplectania nigrella* CBS 444.97.

8. A polynucleotide construct comprising the polynucleotide molecule according to any of claims 3-7.

9. The polynucleotide construct of claim 8 comprising one or more control sequences, such as a promoter, a leader sequence, a polyadenylation sequence, a signal peptide, a propeptide and a transcription terminator sequence .

10. An expression vector comprising the following operably linked elements: a transcription promoter; a DNA segment selected from the group consisting of (a) polynucleotide molecules encoding a polypeptide having carbohydrate-binding module activity comprising a nucleotide sequence as shown in SEQ ID NO:1 from nucleotide 109-531, (b) polynucleotide molecules encoding a polypeptide having carbohydrate-binding module activity that is more than 50% identical to the amino acid sequence of position 34-174 of SEQ ID NO:2 or a fragment thereof that has carbohydrate-binding module activity; and (c) degenerate nucleotide sequences of (a) or (b); and a transcription terminator.

11. A cultured cell into which has been introduced an expression vector according to claim 10, wherein said cell expresses the polypeptide encoded by the DNA segment.

12. The cell according to claim 11, which is an eukaryotic cell, in particular a fungal cell, or an endogenous cell from which the DNA segment, encoding the polypeptide exhibiting endo-beta-1,4-glucanase activity, originates.

13. The cell according to claim 12, wherein the cell belongs to a strain of *Aspergillus*, preferably a strain of *Aspergillus oryzae,* preferably the strain *Aspergillus oryzae* BECh2.

14. A method of producing a polypeptide having carbohydrate-binding module activity comprising culturing a cell according to claim 11, whereby said cell expresses a polypeptide encoded by the DNA segment; and recovering the polypeptide.

15. An isolated polypeptide having carbohydrate-binding module activity, in which the polypeptide is (i) free from homologous impurities, and (ii) produced by the method according to claim 14.

16. A composition comprising a CBM according to claims 1, 2 or 15.

17. The composition of claim 16 further comprising one or more enzymes selected from the group consisting of proteases, cellulases, beta-glucanases, hemicellulases, lipases, peroxidases, laccases, alpha--amylases, glucoamylases, cutinases, pectinases, reductases, oxidases, phenoloxidases, ligninases, pullulanases, pectate lyases, xyloglucanases, xylanases, pectin acetyl esterases, polygalacturonases, rhamnogalacturonases, pectin lyases, other mannanases, pectin methylesterases, cellobiohydrolases, transglutaminases; or mixtures thereof.

18. A method for degradation of cellulose-containing biomass, wherein the biomass is treated with an effective amount of the carbohydrate-binding module according to any of claims 1-2 and 15 or of the composition according to claims 16 or 17.

19. A hybrid endo-glucanase, exhibiting endo-beta-1,4-glucanase activity comprising a CBD according to claims 1, 2 or 15 and a catalytic domain.

20. A composition comprising a carbohydrate-binding module according to claims 1, 2 or 15 or the hybrid endo-glucanase of claim 19.

21. Use of a carbohydrate-binding module according to claims 1, 2 or 15 or the hybrid endo-glucanase of claim 19 in a detergent composition.

22. Use of a carbohydrate-binding module according to any of claims to claims 1, 2 or 15 or the hybrid endo-glucanase of claim 19 in textile finishing processes.

23. Use of a carbohydrate-binding module according to any of claims to claims 1, 2 or 15 for purification of polypeptides.

24. Use of a carbohydrate-binding module according to any of claims to claims 1, 2 or 15 for immobilisation of active enzymes.

25. Use of a carbohydrate-binding module according to any of claims to claims 1, 2 or 15 for baking.

26. Use of a carbohydrate-binding module according to any of claims to claims 1, 2 or 15 for manufacturing of biofuel.

27. Use of a carbohydrate-binding module according to any of claims to claims 1, 2 or 15 for modification of plant cell walls.

28. Use of a carbohydrate-binding module according to any of claims to claims 1, 2 or 15 for processing of cellulose fibre.